California High Speed Rail Separating the Myth from the Reality



Article XVI of the California Constitution authorizes the Legislature, at any time after the approval of a general obligation bond act by the people, to reduce the amount of the indebtedness authorized by the act to an amount not less than the amount contracted at the time of the reduction or to repeal the act if no debt has been contracted. *AB 1455 – Harkey* (Valadao/LaMalfa)

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Cost and Scope of High-Speed Rail Project

What Voters Approved in 2008

- for with a combination of 1/3 state funds, 1/3 federal funds, and 1/3 private funds. Investment from California taxpayers limited to \$9.95 billion bond.
- System connecting San Francisco and Los Angeles complete in 2020.
- Trip time = 2 hours 40 minutes
- Trip cost = \$55
- Ridership of 95 million passengers per year by 2030.

What HSRA Claims Today

- Total cost of \$98-\$117 billion. Since 2008, **costs have increased more than 200%.**
- Reliance on federal funding has increased nearly 6-fold.
- No sources of private capital have been identified.
- "Blended" system connecting San Francisco and Los Angeles complete in 2034 (project length increased 14 years since 2008).
- Trip cost = \$105
- Ridership of 29.6-43.9 million passengers per year. Ridership estimates decreased 2-3 fold since 2008.
- Existing funding only sufficient for building a 130 mile, non-electrified, non-operable "Initial Construction Segment" at a cost of \$6 billion.

Reality Check

- According to the Legislative Analyst, "the possible future sources of funding necessary to complete Phase 1 that are identified in the draft business plan are highly speculative...It is highly uncertain if funding to complete the high-speed rail system will ever materialize."
- Current estimates fail to account for security. This could increase travel time by at least one hour, and will further increase ticket prices and decrease ridership.
- Repaying high-speed rail bonds will cost the state's General Fund \$647 million per year for 30 years or approximately \$20 billion for this \$9.95 billion bond.

Taxpayer Subsidies for High-Speed Rail

What HSRA Claims Today

The HSRA claims that high-speed rail throughout the world is profitable, requiring no government subsidies of ongoing costs for maintenance and operations. According to HSRA Board Members:

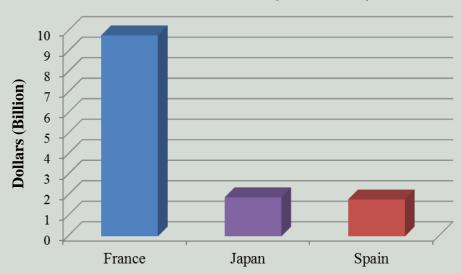
"Every high-speed rail system in the world operates at a profit, covering operations and maintenance costs, and providing a surplus to invest in expanding and improving the system to meet ever-growing demand." 1

"These things last for 100 years and they cover their operating, maintenance and capital refreshment. I don't know any road that does that."²

Reality Check

On April 19, 2007, the House Committee on Transportation and Infrastructure held a hearing on international high-speed rail systems. The Committee reviewed a report commissioned by the EU on public budget contributions to railway systems, and found that high-speed rail systems require high levels of government funding on a continuing basis³:

Annual Public Subsidy for Rail Systems



¹Chairman Thomas Umberg, LA Business Journal, 10/3/2011. ²Board Member Mike Rossi, NPR Morning Edition, 11/28/2011. ³Hearing before the Subcommittee on Railroads, Pipelines, and Hazardous Materials on International High-Speed Rail Systems, House Committee on Transportation and Infrastructure, April 19, 2007.

Jobs Created by High-Speed Rail

What HSRA Claims Today

- According to the HSRA, high-speed rail will create 20,000 jobs per \$1 billion investment.
 Approximately one-third of jobs estimates include direct employment. The remainder is based on a "multiplier effect" for indirect and induced jobs. This amounts to:
- 100,000 total jobs (33,000 direct jobs) for the **Initial Construction Segment (ICS).**
- 1,250,000 total jobs (416,666 direct jobs) for **Phase I**.

NOTE: HSRA uses a highly misleading methodology to inflate job estimates. Estimates of jobs created are represented in "job-years". One year of full employment equals a job-year. One person employed for twenty years equals twenty "jobs" under this system. HSRA estimates actual direct jobs (not job-years) as:

- 6,666 for the Initial Construction Segment.
- 16,666 for Phase I.

Reality Check

Evidence suggests HSRA overstates likely job creation by nearly 50%:

- The President's Council of Economic Advisors estimated that every \$1 billion in government spending resulted in 10,854 jobs created (ARRA evaluation, 2009).
- Washington Department of Transportation estimates 11,400 jobs per \$1 billion in construction spending.
- Florida Department of Transportation's (FDOT) application to the federal government for HSR funding estimated the creation of about 50,000 jobs (10,000 direct jobs) for approximately 100 miles of rail over four years. By comparison, the California HSRA estimates 100,000 jobs created for 130 miles of rail in the ICS over five years.
- A Congressional Budget Office report on the estimated impact of the American Recover and Reinvestment Act (ARRA) through June 2011 states, "substantial government spending can cause a shift in resources (including employees) away from production in other businesses and sectors to government-funded projects. That indirect crowding-out effect could cause growth in employment among recipients of ARRA funding to be offset by declines in employment elsewhere in the economy."

Even using the HSRA optimistic job creation estimates for Phase I (in actual jobs, not job-years), California investment will be about \$1.96 million per job created, or \$5.8 million per direct job created.

Opportunity Cost of HSR Construction

What HSRA Claims Today

According to the HSRA:

"As has been proven around the world, high-speed rail, integrated into a balanced transportation system, can meet a large part of the increased demand in a sustainable, cost-effective manner. Providing equivalent new capacity through investment in highways and aviation would cost California almost twice as much as the Phase 1 high-speed rail system."

Reality Check

California would be unlikely to invest in new capacity, because it cannot currently afford to maintain its existing infrastructure. Spending \$100 billion on high-speed rail diverts funding from critical investments needed to upgrade California's crumbling infrastructure:

- In 2010, the California Department of Transportation reported a funding shortfall of about \$130 billion over the next ten years to maintain state-operated highways, and local governments' needs assessment in October 2009 reported an additional shortfall of \$71 billion for maintenance over the same time period. The California Transportation Commission confirmed these findings in November 2011 when it reported that the state will need **an additional \$300 billion** to maintain and expand current road infrastructure over the next 10 years.
- California ranks **second in the nation for poor road conditions** and the impact per motorist is 176% of the national average of \$335.
- More than one of every four lane-miles in the state is in a severe state of disrepair.
- If the \$9.95 billion Prop 1A bonds authorized for High Speed Rail were to be used for highway maintenance it **could rehabilitate almost one-third of our highways in poor condition.**
- Investing \$100 billion in highway maintenance would create at least 1.8 million jobs (as reported by the Authority). Contrastingly, the CHSRA anticipates creating only 1.25 million jobs for investing in high-speed rail.

Incomplete Planning for High-Speed Rail

What HSRA Claims Today

The HSRA claims that the 2012 Business Plan demonstrates sufficient planning and analysis for the project to move forward. According to Board Member Mike Rossi:

"After conducting an in-depth analysis I am convinced that...this is a current, realistic and transparent plan and identifies the funds and financing necessary to implement high-speed rail in California."

¹HSRA Press Release, 11/1/2011.

Reality Check

The 2012 Business Plan fails to consider several critical points. Proceeding without a complete analysis could result in substantial future costs:

- No High Speed Train Sets have ever been certified and approved to run on U.S. railways. Existing locomotives in production and use throughout the world failed U.S. approval due to safety issues. Therefore, no bullet train may be imported or used in the U.S.
- The \$6 billion "Initial Construction Segment" may need to be rebuilt if the Federal Rail Administration ultimately requires heavier locomotives for safety reasons.
- HSRA has not reached agreement with stakeholders for the alignment upon which the HSR would run, nor have the Environmental Impact Studies been completed and approved.
- Caltrans advises that at least 1,000 grade crossings will have to be constructed so that the HSR may move at speed safely throughout the state. Caltrans reports that the cost to address grade crossings runs between \$10 million and \$250 million apiece. Additionally, the section of track between San Francisco and San Jose adds another 40 grade crossings to this cost.
- HSRA fails to adequately account for mitigation of noise and vibration. According to the draft Environmental Impact Report for Fresno-Bakersfield segment, the project will result in severe noise impacts for 523 residential sites, 10 school sites, 1 hospital site, 27 church sites, 4 park sites, and 45 historic sites, even after completing all mitigation efforts.

Public Support for High-Speed Rail

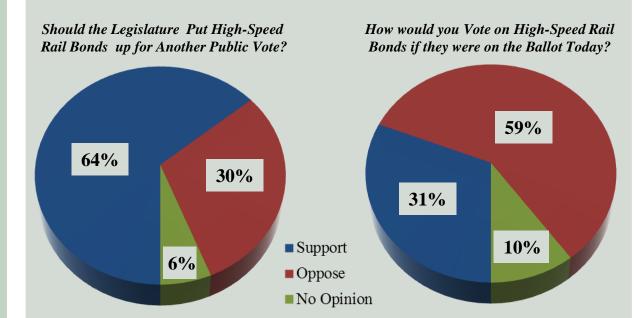
What HSRA Claims Today

The HSRA claims that the project should proceed against the will of voters:

"The uncertain economy may give some voters pause, but this kind of infrastructure investment and job creation is exactly what we need at this time and we will be making that case to Californians across the state who voted to start this project in 2008."

Reality Check

A Field Poll released on December 6, 2011 reveals that California voters now oppose the high-speed rail project by a 2:1 margin:



In addition, 2/3 of those who voted for high-speed rail bonds in 2008 now support a re-vote on the bond package

Environmental Benefits of High-Speed Rail

What Voters Approved in 2008

According to the HSRA:

"High-speed trains will eliminate over 12 billion pounds* of the greenhouse gas emissions that cause global warming each year. That's equivalent to removing more than one million vehicles from our roads annually."

*12 billion pounds = **5.4 million** metric tons (MMT)

What HSRA Claims Today

According to the Draft 2012 Business Plan:

"High-speed rail will bring significant benefits to California, both in the near term and in the long run, and for individuals and the state as a whole. Benefits will be statewide and will encompass both economic and environmental concerns, including the reduction of three million tons* of carbon dioxide emissions annually."

*3 million tons = **2.7 million** metric tons (MMT)

Reality Check

- Between 2008-2011, the HSRA's estimate of greenhouse gas mitigation dropped by
 50%.
- The HSRA provides no data to support these estimates, and no explanation for the change.
- Even as HSRA unveiled its original greenhouse gas reduction estimates, the 2008 business plan revealed that "greenhouse gas analysis methods are still being developed."
- The failure to disclose methods and assumptions raises serious questions about the reliability of current projections.

Environmental Benefits of High-Speed Rail

What HSRA Claims Today

According to the HSRA:

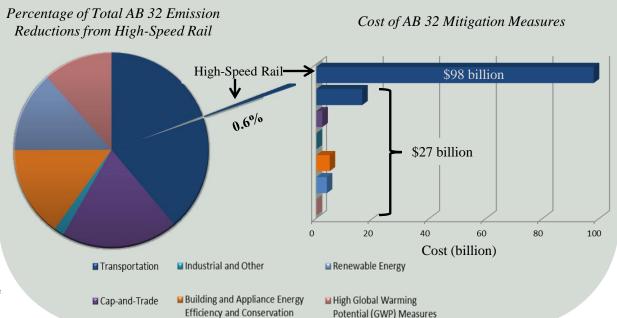
"The California High Speed Train (HST) System will be an essential component of helping California meet the greenhouse gas emission requirements set forth in the California Global Warming Solutions Act (AB 32)."

"The Climate Change Scoping Plan produced by the California Air Resources Board (CARB) (pursuant to AB 32) includes the HST system as one of the state's fundamental strategies in meeting the 2020 emissions reduction goals."

NOTE: Scoping Plan based on earlier high-speed rail construction timeline and ridership assumptions. Draft 2012 HSRA business plan projects no operable high-speed rail in 2020, and therefore no emissions savings. Updated ridership assumptions are significantly lower than those considered by ARB in original scoping plan, and should result in considerably lower emissions savings than shown.

Reality Check

- According to the Air Resources Board (ARB) Scoping Plan for achieving greenhouse gas reductions mandated by AB 32, high-speed rail will be responsible for eliminating **1.0 million metric tons (MMT)** of carbon dioxide in 2020.
- This is 82% below what HSRA promised voters in 2008, and 63% below what HSRA claims today.
- ARB estimates high-speed rail will be responsible for just 0.6% of emission reductions under AB 32, yet the estimated cost to complete high-speed rail (\$98 billion) is 3.6-fold greater than implementing all other AB 32 components combined.*



^{*}Source: California Air Resources Board AB 32 Scoping Plan.

Environmental Benefits of High-Speed Rail

What HSRA Claims Today

According to the Draft 2012 Business Plan:

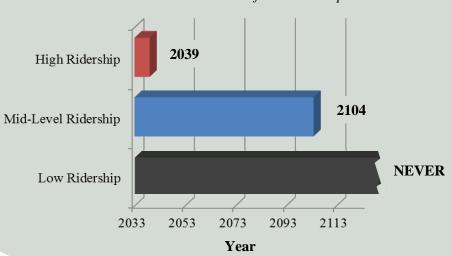
A statewide HSR system will link the state's metropolitan areas, create a world-class network that can better position California for the future by providing a more balanced, efficient transportation system, enhance economic competitiveness, and, advance environmental goals...the transportation, environmental, and job-creating benefits are clear.

NOTE: The 'high ridership' estimate in this study relied upon claims in the 2008 Business Plan, which are no longer deemed achievable in the 2012 Business Plan.

Reality Check

- The HSRA fails to consider the considerable environmental costs of constructing high-speed rail. When these factors are considered, high-speed rail may actually cause more environmental harm than good.
- Researchers at UC Berkeley examined the "break-even" point for high-speed rail, when greenhouse gas savings from HSR operation pay back the greenhouse gas emissions from HSR construction.
 At low ridership estimates, HSR will never achieve a returnon-investment on greenhouse gas emissions, resulting in permanent environmental damage.*

Time Necessary to Achieve Greenhouse Gas Return-on-Investment After HSR Completion



^{*}Source: Mikhail Chester and Arpad Horvath, Life-cycle assessment of high-speed rail: the case of California, 2010 Environ. Res. Lett. 5.

Necessity of Starting in the Central Valley

What HSRA Claims Today

According to the HSRA:

"California High-Speed Rail Authority CEO Roelof van Ark announced today that a letter received Wednesday from Federal Railroad Administrator Joe Szabo outlines the federal agency's requirement that all federal funds for the project must be directed to either the Merced-to-Fresno or to the Fresno-to-Bakersfield portion of the project..."

HSRA also testified before the Legislature that:

"The decision on where to start was made by the federal government."

Reality Check

The Administrator of the Federal Railroad Administration, Joseph Szabo, testified before the House of Representatives Transportation and Infrastructure Committee on December 15, 2011 that California, not the federal government, made the decision to begin construction in the Central Valley, and the federal government could entertain applications for alternative segments:

Rep. Richardson (D-CA): In ARRA was it noted generally [as] funding for high-speed rail, or was it specifically for the Central Valley corridor?

Joseph Szabo: It is the requirements for high-speed rail. It's important that the Committee understand that the FRA doesn't just get to pick where we want to invest the dollars. We have to sort through the **applications that the state makes**, and only then can we make our decision...It is the states that apply, and then we review those applications.

Rep. Brown (D-FL): San Diego to Los Angeles—Did the state apply?

Joseph Szabo: There was never an application for that, and obviously it's something that may have some merit. If the state would in fact apply for it, it would be something we could of course consider.

The U.S. Department of Transportation Under Secretary for Policy, Roy Kienitz, reiterates this in a May 25, 2011 letter to HSRA:

"This selection was based on careful consideration of the **options put forward by** California..."

HIGH SPEED RAIL THE LEMON LAW



AB 1455



- The voters were deceived (court ruling)
- Project lacks sufficient private, public or debt funding to complete even a requisite operating segment, as required under Proposition 1A; state operating subsidy predicted
- Jobs numbers are inflated; existing infrastructure in dire need of extension and repair affording "true" shovel ready jobs
- Environmental Impact Report is flawed and incomplete
- California is struggling with long term deficits and debt
- Governor claims to need more taxes
- Voters are suffering from buyer's remorse